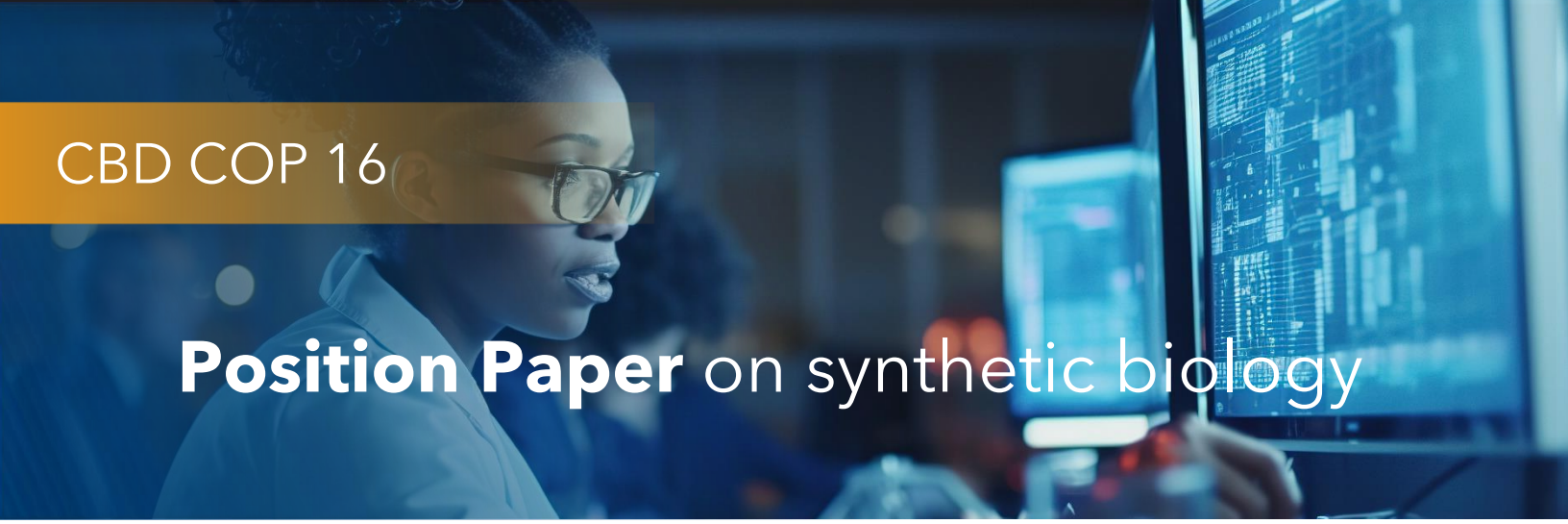

CBD COP 16

Position Paper on synthetic biology

Synthetic biology has the potential to address pressing global challenges across various sectors and contribute to advancements in health, agriculture, and conservation efforts, among others. As synthetic biology continues to evolve and research advances, many tangible positive applications are already emerging. Gene drive technologies are one possible use of synthetic biology approaches being explored to contribute to addressing specific conservation and public health challenges that current methods are not able to solve.

In decision CBD/COP/DEC/15/31, Parties to the Convention on Biological Diversity (CBD) established a multidisciplinary Ad Hoc Technical Expert Group (mAHTEG), tasked over a two-year period with identifying and prioritizing synthetic biology trends and issues, as well as identifying gaps in capacity-building, technology transfer, and knowledge-sharing. As Parties gathered to review the outcomes of the mAHTEG report at the 26th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 26), the need for further capacity-building initiatives emerged as one of the main points of consensus. **The proposed capacity-building action plan has the potential to contribute most to the three objectives of the Convention and should be a priority for the next biennium**.

Next steps on synthetic biology under CBD:

- The horizon scanning and assessment carried out by the mAHTEG did not provide insightful results due to methodological issues, and the focus on technologies that are not new or emerging. It should not be renewed or expanded.
- Conducting a similar exercise in the next CBD cycle will not address the critical issue of unequal participation in the field of synthetic biology. This topic has not received adequate time and attention in the current mAHTEG work, but it is a priority for many Parties.
- Resources are limited and should be allocated to initiatives that contribute the most to CBD objectives and where there is consensus, such as capacity-building. Parties should use COP 16 to define the proposed capacity-building action plan's goals and priorities.
- Any additional activities by the mAHTEG should avoid duplicating other CBD processes, instead focusing on new topics that will most advance the Parties' ability to access and benefit from synthetic biology technologies. This could include the identification of benefits of synthetic biology vis-à-vis the implementation of the CBD and Global Biodiversity Framework (GBF).

Future work on synthetic biology should focus on developing and implementing the capacity-building action plan to help countries carry out the necessary assessments and benefit from the research.

Many countries face significant challenges in capacity-building, technology transfer, and knowledge-sharing, contributing to further inequity in the synthetic biology field. The mAHTEG was mandated to explore ways to facilitate, promote and support these, but discussions have not advanced since COP 15.

The proposed capacity-building action plan would contribute the most to overcoming inequality and achieving the Convention's objectives. It would enable Parties to assess, use and benefit from synthetic biology technologies, making informed decisions based on their national contexts and priorities.

If resources are available for activities beyond the capacity-building action plan, they should be allocated to work that advances the implementation of the Convention's goals and the Kunming-Montreal Global Biodiversity Framework (GBF).

The Terms of Reference (TORs) in the Recommendation SBSTTA-26/4 include work that would be duplicative and already tackled by CBD and its Protocols. Resources are limited. Priority should be given to initiatives that would enable Parties themselves to assess and benefit from synthetic biology tools, closing the gap between developing and developed countries in this field. Based on the TOR, this could include:

- Identify how synthetic biology's benefits can contribute to implementing the Convention and GBF.
- Advise Parties on capacity-building and their needs to research, develop and assess synthetic biology, ultimately benefiting from these technologies.
- Review available guidance from CBD and other organisations to support countries to carry out economic, social and health impact assessments of new technologies, building on existing methodologies such as the Environmental, Social, and Health Impact Assessment (ESHIA) and Strategic Environmental Assessment (SEA).

Further assessment of gene drive organisms under the mAHTEG would be duplicative and yield no new value.

Gene drive technologies have already been discussed at length under CBD and other UN bodies and are governed by multiple international and national frameworks. Gene drives have been under discussion under the Convention for almost a decade. Decision CBD/COP/DEC/14/19 already offers a cautious but supportive approach to developing these technologies. The additional voluntary guidance materials for risk assessments of LMOs containing engineered gene drives, currently under development by another AHTEG, also demonstrate that gene drives are not new on the CBD's agenda.

There are many different types of gene drives for many different purposes and contexts. The mAHTEG lacks the expertise and resources to accurately assess gene drive's potential benefits and risks, as it would require a case-by-case approach. Moreover, the mAHTEG's assessment would be detached from the specific socio-economic and cultural contexts in which different approaches may be proposed for use. There are established processes and methodologies for such assessments, which are often required by national authorities as part of the review of regulatory dossiers. In several countries, Social-Economic and Health Impact Assessments (known as either ESHIA or ESIA in different national jurisdictions) are already considered a requirement in the assessment of gene drive technologies (learn more at "Environmental, Socio-economic, and Health Impact Assessment (ESHIA) for Gene Drive Organisms"). At a broader level, Strategic Impact Assessments (SIA) or Strategic Environment Assessments (SEA) are well-established approaches that assess possible social, cultural, economic, and health impacts.

Keeping the gene drive under mAHTEG review would lead to a multi-year assessment process without a clear methodology or agreement on critical concepts. If Parties still believe that additional work on synthetic biology is necessary, they could request the mAHTEG to map out what is currently available to guide Parties in doing impact assessments, considering existing methodologies such as those for Environmental, Social, and Health Impact Assessments (ESHIA) and Strategic Environmental Assessments (SEA).